

Abstract of the Disclosure

Outlier identification is employed to detect abnormally high or low energy use in a building. The utility use is measured periodically throughout each day and the measurements are grouped according to days that have similar average utility consumption levels. The data in each group is statistically analyzed using the Generalized Extreme Studentized Deviate (GESD) method. That method identifies outliers which are data samples that vary significantly from the majority of the data. The degree to which each outlier deviates from the remainder of the data indicates the severity of the abnormal utility consumption denoted by that outlier. The resultant outlier information is readily discernable by the building operators in accessing whether the cause of a particular occurrence of abnormal utility usage requires further investigation.